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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/722,628

11/28/2003

Var Lordahl

Valve

7115

42811

7590

08/28/2006

KAJANE MCMANUS  
MCMANUS AND ASSOCIATES  
1505 ASHLEY COURT  
WOODSTOCK, IL 60098

EXAMINER

HEPPERLE, STEPHEN M

ART UNIT

PAPER NUMBER

3753

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/722,628

Applicant(s)

LORDAHL ET AL.

Examiner

Stephen M. Hepperle

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 3-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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The finality of the office action of 8 June 2006 is withdrawn, and this action is made final. In view of some obvious omissions in the amendment of 14 August 2006 and some errors in the final rejection above, it seemed useful to delay finality in order to clarify the record.

First, applicant's amendment of 14 August will not be entered because, although no new amendments to the claims are proposed, at least a large section of claim 1 is missing. In a phone conversation with Mr. McManus on 23 August 2006, it was agreed that the claims submitted in the previous amendment of 19 May 2006 are the correct claims. It is understood, however, that applicant is on vacation and does not have ready access to his file. This action will therefore give applicant a bit more time to file an after final amendment, in case actual changes to the claims were intended.

Second, it appears that some reference numbers in the last final rejection are incorrect. They are corrected below. However, as no new art is cited, this rejection is final.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. Moen shows a mixing valve cartridge with a pressure balancing valve spool 58 (Fig. 1) reciprocating inside sleeve 40 (Fig. 2), which is inside casing 24 (Fig. 3). Nambu shows a spool valve with a plastic spool inside a plastic housing, where the plastic is PTFE or PEEK (col. 4, lines 50-59). Takano

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teaches a pressure balancing spool made of PTFE because of light weight and self-lubrication ability (col. 4, lines 45-49). It would have been obvious to make the Moen sleeve and/or spool of PTFE as taught by Nambu because PTFE is well known for its superior chemical resistance and low friction. Alternatively, it would have been obvious to make the Moen plastic sleeve 40 and/or spool 58 of PTFE as taught by Takano to reduce weight and provide self lubrication. Regarding the limitations newly added to claim 1, the reason for the structure is given no weight in the claims, although the use of PTFE is notoriously well known for its self lubrication ability.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Powers et al. Powers shows a mixing valve with a pressure balancing spool having a spring 52 that biases the spool in a direction to restrict hot water from inlet 10, to assure no hot water gets through if there is no cold water (for safety). It would have been obvious to add a biasing spring to Moen to restrict hot water to prevent scalding as taught by Powers. To restrict the hot supply 16, the spring would be placed between the Moen spool 58 and stem 44. In the absence of other disclosure, it would be reasonable to assume that the Moen stem is made of metal. Moen also teaches (col. 5, lines 46-53) that it uses a shear member of the type used in patent application 011,405, now US patent 4,305,419, which patent has a stainless steel stem. Alternatively, it would have been obvious to make the stem of metal to transmit force of the handle 20 to the valve, avoid stripping of the screw that fastens the handle, and because that is the normal material because of its strength.

Claims 5-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. further in view of Powers et al.

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Powers shows a mixing valve with a pressure balancing spool having a spring 52 that biases the spool in a direction to restrict hot water from inlet 10, to assure no hot water gets through if there is no cold water (for safety). It would have been obvious to add a biasing spring to Moen to restrict hot water to prevent scalding as taught by Powers. To restrict the hot supply 16, the spring would be placed between the Moen spool 58 and stem 44. In the absence of other disclosure, it would be reasonable to assume that the Moen stem is made of metal. Moen also teaches (col. 5, lines 46-53) that it uses a shear member of the type used in patent application 011,405, now US patent 4,305,419, which patent has a stainless steel stem. Alternatively, it would have been obvious to make the stem of metal to transmit force of the handle 20 to the valve, avoid stripping of the screw that fastens the handle, and because that is the normal material because of its strength.

Claims 1-2 are allowed. Applicant's remarks concerning seal inserts is correct; Moen uses such inserts on the casing, not the sleeve.

Applicant's arguments filed 18 August 2006 have been fully considered but they are not persuasive. The recitation of PTFE's inherent qualities are inherently met in a combination involving PTFE. Regarding motivation to make parts of Moen of PTFE, it is not necessary that the art or common practice teach making the modification for the same reason as applicant. If the art or known ordinary practice teach using PTFE as obvious for any reason applicable to Moen, it is obvious to use PTFE in Moen. Regarding Moen US Patent No. 4,305,419, since its source patent application was cited in the Moen '121 patent, its entire disclosure is seen as part of Moen '121. The same is true of Patent No. 3,840,048 cited on the bottom of col. 2.

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All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

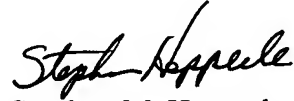
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on 571-272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Stephen M. Hepperle  
Primary Examiner  
Art Unit 3753

SMH